

Table of flood stages during September 1935

[All dates are in September, unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
James:	<i>Feet</i>			<i>Feet</i>	
Columbia, Va.....	10	5	10	35.0	6
Richmond, Va.....	8	6	9	23.6	7
Roanoke:					
Randolph, Va.....	18	6	8	25.2	8
Weldon, N. C.....	31	7	10	35.9	9
Williamston, N. C.....	10	12	18	10.7	15
Fishing Creek: Enfield, N. C.....	14	7	9	15.8	8
Tar:					
Rocky Mount, N. C.....	8	6	9	9.0	8
Tarboro, N. C.....	18	11	11	18.8	11
Greenville, N. C.....	12	9	15	14.7	12
Neuse:					
Neuse, N. C.....	13	6	8	15.0	6
Smithfield, N. C.....	12	7	9	15.5	8
Haw: Moncure, N. C.....	19	6	6	22.0	6
Cape Fear: Lock No. 2, Elizabethtown, N. C.....	20	7	9	26.0	7
Waccamaw: Conway, S. C.....	7	23	25	7.1	23-25
Santee:					
Rimini, S. C.....	12	1	2	12.8	1
		5	20	14.0	14
		27	28	12.0	28
Ferguson, S. C.....	12	2	2	12.0	2
		6	23	13.3	14, 15
		1	1	14.8	1
Savannah: Ellenton, S. C.....	14	7	9	15.8	9
		13	14	15.0	13, 14
MISSISSIPPI SYSTEM					
Missouri Basin					
Solomon: Beloit, Kans.....	18	2	3	23.0	3
		10	10	19.6	10
Republican:					
Concordia, Kans.....	8	10	10	8.5	10
Clay Center, Kans.....	12	1	2	14.9	2
		11	11	13.4	11

Table of flood stages during September 1935—Continued

[All dates are in September, unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Ohio Basin					
Hocking: Athens, Ohio.....	<i>Feet</i> 17	4	6	<i>Feet</i> 19.7	5
Arkansas Basin					
Purgatoire: Higbee, Colo.....	4	8	8	4.0	8
North Canadian: Yukon, Okla.....	8	6	6	8.1	8
WEST GULF OF MEXICO DRAINAGE					
Colorado:					
Columbus, Tex.....	24	8	13	30.2	13
Wharton, Tex.....	26	9	15	32.4	14
Guadalupe:					
Gonzales, Tex.....	20	8	8	20.5	8
Victoria, Tex.....	21	10	11	22.4	11
		28	Oct. 1	28.2	Oct. 1
Rio Grande:					
Del Rio, Tex.....	15	4	6	24.5	5
		8	8	21.5	8
Eagle Pass, Tex.....	16	5	7	30.4	6
		8	9	23.8	9
Laredo, Tex.....	27	7	8	30.3	7
Rio Grande, Tex.....	21	8	11	26.5	9
Hidalgo, Tex.....	21	9	13	23.4	12
Mercedes, Tex.....	21	9	15	22.6	11
Brownsville, Tex.....	18	10	15	18.3	13

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, W. F. McDONALD in Charge]

NORTH ATLANTIC OCEAN, SEPTEMBER 1935

By H. C. HUNTER

Atmospheric pressure.—Pressure averaged slightly below normal over most of the North Atlantic area; but around the British Isles, particularly to westward and northward, it averaged considerably below, while over waters near Portugal and northwestern Africa it was above normal.

The highest barometer reading so far noted at sea was 30.55 inches, by the British motorship *Cheyenne* on the 30th, very near Horta. The American tanker *Pueblo*, on the evening of the 2d, experienced the lowest pressure any vessel has yet reported this month, 27.18 inches, about 24°35' N., 80°20' W., in the hurricane that swept the Florida Straits on that date; for that part of the ocean remote from the tropics, the lowest was 28.02 inches, by the American steamship *Black Condor*, noted during the evening of the 8th, near 51° N., 31° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, September 1935

Station	Average pressure	Departure	Highest	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Julianehaab, Greenland.....	29.70	—	30.04	22	28.89	28
Reykjavik, Iceland.....	29.68	—0.04	30.27	7	29.17	29
Lerwick, Shetland Islands.....	29.62	— .22	30.29	8, 9	28.87	19
Valencia, Ireland.....	29.78	— .21	30.11	7	29.29	15
Lisbon, Portugal.....	30.12	+ .10	30.33	9	29.95	7
Madeira.....	30.10	+ .08	30.18	18	30.00	7, 28
Horta, Azores.....	30.14	— .03	30.50	30	29.79	6
Belle Isle, Newfoundland.....	29.82	— .08	30.34	5	29.18	30
Halifax, Nova Scotia.....	30.00	— .05	30.34	4, 18	29.46	10
Nantucket.....	30.04	— .04	30.35	25	29.50	6
Hatteras.....	30.02	— .04	30.29	25	29.56	6
Bermuda.....	30.07	— .01	30.21	3	29.80	30
Turks Island.....	29.97	— .01	30.05	12	29.86	26
Key West.....	29.90	— .04	30.05	12	29.41	3
New Orleans.....	29.95	— .03	30.12	13	29.73	14

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour means.

Cyclones and gales.—Two storms that apparently were unconnected with any tropical disturbance deserve mention; they were in progress chiefly between the times of the notable West Indian hurricanes:

The earlier storm crossed the New Jersey coast on the 9th, moving eastward as a storm of no great strength; but on the 11th over the Grand Banks it had become very energetic, one liner noting force 12. Moderate northeastward advance continued, with many reports of gales during the 12th and 13th; and on the 16th another liner encountered hurricane winds when about 400 miles southwest of the tip of Ireland. During the 16th–19th this storm caused notable gales over waters adjacent to Ireland and Scotland. The indraft of tropical air over waters to southwestward, in connection with this low, was undoubtedly a factor in causing the prevalence of fog thereabouts during the remainder of the month, which is mentioned in a later paragraph.

A storm of less importance showed moderate energy near Newfoundland on the 23d, and also thereafter as it traveled northeastward, until the 27th, when it was some distance to southward of Iceland.

Tropical storms.—Late in August a disturbance, appearing first as a weak circulation over Yucatan, moved westward on the 31st to the Bay of Campeche and showed some increase of intensity. The highest wind velocity reported was force 8, from a ship near latitude 20° N., longitude 94° W., at 8 a. m., September 1; and the lowest pressure reported was 29.68 inches. The disturbance did not increase much in intensity, and moved westward to pass inland south of Vera Cruz on the afternoon of September 1.

At the same time a hurricane of much importance was developing over the southern Bahamas and the waters north of Cuba. This hurricane devastated the Florida Keys on the afternoon of September 2, casting the American liner *Dixie* and the Danish steamer *Leise Maersk* aground on the reefs, from which they were salvaged without loss of life. This storm is described at length in an article elsewhere in this issue. After its center had rounded Florida and had crossed the Southeastern States it reached the ocean again near the Virginia Capes as a storm of less force, but soon became more energetic. To

southward of Newfoundland on the 7th, numerous vessels reported winds of hurricane strength, as did several near midocean on the 8th. Pressure was then high from Iceland to Portugal, and the storm took a northerly course. Chart IX indicates the situation on the 2d, when the center was near southern Florida, and chart X shows the condition on the 7th.

Late in the month another important hurricane appeared; this storm also is fully discussed on pages 271–273 in this issue. Chart XI presents the situation on the 26th, when the storm was in the western Caribbean, while chart XII shows it on the 30th, near Bermuda, and gives the previous track. This storm was of hurricane strength in the western Caribbean, on the night of September 25–26, as reported by the American tanker *A. C. Bedford*. After crossing Cuba on the morning of the 28th it passed over the western Bahamas, and the American liner *La Perla* and the Japanese motorship *Tokai Maru* experienced hurricane winds on the 29th in the region northeast of Great Abaco Island. Gales were encountered by ships along the later course of the disturbance northeastward past Bermuda, but nothing more than squalls of hurricane strength was reported after the 29th, as the center moved northward toward Nova Scotia.

Trans-Atlantic flight.—Felix Waitkus, unaccompanied, flew in 23 hours from New York to near Ballinrobe, Ireland, where he landed during the forenoon of the 22d.

Fog.—Almost throughout the North Atlantic area, fog decreased considerably as compared with August. However, in that portion of the Grand Banks north of the forty-fifth parallel there still was somewhat more fog than normally occurs in September, the 5°-square 45° to 50° N., 50° to 55° W., reporting 12 days foggy, a greater number than in any other part of the North Atlantic.

In the English Channel and the Bay of Biscay, and thence westward to the fifteenth meridian, there was considerably more fog than during the preceding month, and practically all of it was noted after the 18th.

Close to the American coast, between the thirty-fifth and fortieth parallels, the fog increased somewhat, compared with August, but was not nearly so frequent as in the Bay of Biscay region.